Journal of Air Law and Commerce

Volume 45 | Issue 4 Article 11

1980

Pilots Who Drink: FAA Regulations and Policy, and the Air Line Pilots Association Treatment Program

Earl D. Weed III

PILOTS WHO DRINK: FAA REGULATIONS AND POLICY, AND THE AIR LINE PILOTS ASSOCIATION TREATMENT PROGRAM

EARL D. WEED III

ALCOHOLISM has been called the fourth largest health problem in the United States today.[1] Pilots are not immune from the problem of alcoholism,[2] and drinking and flying have been shown to be a combination at least as potentially lethal as drinking and driving.[3] Particularly in the area of commercial passenger-carrying air service, the results of alcohol-induced miscalculation or mistake can be disastrous. The purposes of this paper are to discuss the problem of pilot alcoholism, to examine the methods of coping with the problem adopted by the Federal Aviation Administration (FAA) and the Civil Aeronautics Board (CAB), and to explore and compare an alternative early identification and treatment plan currently being developed by the Air Line Pilots Association, with the approval and support of the FAA.

I. BACKGROUND: ALCOHOL AND FLYING

A. *Alcoholism in the United States*

It has been estimated that more than 70% of the adult population of the United States indulge, at least occasionally, in the consumption of alcoholic beverages.[4] Further, the number of drinkers appears to be increasing; each generation contains a larger proportion of drinkers than the past generation.[5] One study indicated that 13% of the populace were "moderate" drinkers and 12% were "heavy" drinkers.[6] Of this drinking population, a significant

[1] Gee, *Stepping Up Industry's War Against Alcoholism*, N.Y. Times, Sept. 25, 1977, § 3, at 3, col. 1 [hereinafter cited as Gee].

[2] See text accompanying notes 24-35, *infra*.

[3] See text accompanying notes 19-23, *infra*.

[4] J. ROEBUCK & R. KESSLER, THE ETIOLOGY OF ALCOHOLISM 14 (1972) [hereinafter cited as ROEBUCK & KESSLER].

[5] *See generally id.* at 15.

[6] Moderate drinkers were defined as those who "drink at least once a month, typically several times, but usually no more than three or four drinks per occa-

number (one in fifteen or sixteen) become alcoholics, or "problem" drinkers. Thus, one study indicated, approximately 9% of the adult population of the United States suffer from drinking problems.[7]

B. *Alcoholism Among Pilots*

Many occupations have risk factors that are conducive to excessive drinking.[8] Although the evidence does not suggest that the incidence of alcoholism among pilots is different from that of other professions, there are certain elements of a commercial pilot's job that may contribute to the development of a drinking problem. It has been suggested that high work load, badly planned or delayed trips, unproductive time or inadequate layover facilities can combine with intracockpit stresses such as excessive noise, vibrations, and low humidity, and with physiological factors such as irregular and improper diet and disturbed body rhythms ("jet lag") to produce what is known as "pilot fatigue."[9] As described by one pilot, commercial flying involves two periods of extremely high tension levels, takeoff and landing, separated by a long stretch of virtual inactivity. The combination is very stressful.[10]

In the past, pilot fatigue has been considered a short-term problem, yet there may be significant long-term effects.[11] Pilots begin their careers in a better general physical condition than the average person, yet studies done in the area of pilot incidence of cardiovascular disease, for instance, show that as pilots get older, they become as susceptible to heart disease as the general population.[12]

sion." Heavy drinkers were those who "drink nearly every day with five or more per occasion at least once in a while, or about once weekly with usually five or more per occasion." *Id.* at 15 (citing D. CALAHAN, C. CALAHAN, I. CALAHAN & H. CROSSLEY, AMERICAN DRINKING PRACTICES 19 (1969)).

[7] ROEBUCK & KESSLER, *supra* note 4, at 17.

[8] R. Masters, E. Hoover, C. Hutchings, R. Gilstrap, G. Chase & J. Pickersgill, An Occupational Alcoholism Program for Professional Airline Pilots, at 3 (1977) (unpublished paper delivered at the 1977 Annual Forum National Council on Alcoholism, San Diego, California, April-May 1977) (citing P. Roman & H. Trice, *The Development of Deviant Drinking Behavior*, 20 ARCHIVES OF ENVT'L HEALTH (1979)) [hereinafter cited as Masters, Hoover & Hutchings].

[9] *Id.* at 4.

[10] Interview with R.J. De Serrano, Director of Flight Operations, Dresser Industries, in Dallas, Texas (Dec. 21, 1979).

[11] Masters, Hoover & Hutchings, *supra* note 8, at 4.

[12] *Id.*

Thus, occupational stresses probably play some part in the making of an alcoholic pilot.[13] It should be emphasized that there is nothing to indicate that pilots are any more susceptible to alcoholism than are the members of any other profession, yet neither are they immune.[14]

C. *Effects of Alcohol*

The effect of alcohol upon drivers of automobiles is well documented. Analysis has shown that drivers with blood alcohol levels higher than .08% stand a substantially greater chance of being involved in an accident than do drivers having no alcohol in their system.[15] Accident experience has been found to increase rapidly as blood alcohol content exceeds .05%.[16] One study indicated that, for a person with a blood alcohol content of .08%, the risk of being responsible for a fatal accident was about four times that of a person who had consumed no alcohol.[17] A 1968 Department of Transportation report indicated that drivers with a blood alcohol content of .10% account for almost half of the single vehicle crashes in which the drivers are killed.[18] Thus, there is no question that alcohol inhibits the skill needed to drive a car.

The adverse effects of alcohol on motor skills, coordination and reaction time are magnified at higher altitudes.[19] Even a small amount of alcohol will markedly affect the judgment, neuromuscular coordination, attention and reaction time of a pilot.[20] If there is an oxygen deficiency such as occurs at higher altitudes, then the effect of alcohol will be more pronounced if, as some physiologists

---

[13] *Id.* at 3-4.

[14] *Id.* at 3.

[15] Waller, *Drinking & Highway Safety*, in DRINKING 119 (J. Ewing & B. Rouse eds. 1978) (citing R. Borkenstein, R. Crawther, P. Schumate, W. Ziel and R. Zylman, *The Role of the Drinking Driver in Traffic Accidents* (1964) (study conducted by the Indiana University Department of Police Administration)) [hereinafter cited as *Drinking & Highway Safety*].

[16] *Id.*

[17] *Drinking & Highway Safety, supra* note 15, at 122.

[18] *Drinking & Highway Safety, supra* note 15, at 122-23 (citing U.S. DEP'T OF TRANSP., THE 1968 ALCOHOL AND HIGHWAY SAFETY REPORT (1968)).

[19] Consumption of Alcoholic Beverages by Crewmembers Before Operation of Aircraft, 30 Fed. Reg. 8799, 8800 (1965) (notice of proposed rulemaking) [hereinafter cited as Proposed Rulemaking].

[20] *Id.*

believe, alcohol retards oxidation in the cells.[21] According to the FAA, the physiological effect of alcohol at 10,000 feet is twice as great as the effect at sea level.[22] Studies have shown that there is a marked decrease in flying ability at blood alcohol levels of .04%, which is half the level at which driving is effected, and less than one-third of the legal driving limit of .15%.[23]

Aircraft accident investigation in the early 1960's revealed that alcohol consumption had been a factor in a significant number of fatal crashes.[24] In 1964 an alcohol incidence study was done on 158 of the 477 fatal aviation accidents that had occurred in 1963.[25] The accidents studied had occurred in the general aviation field, which included civil, private, business, corporate, and commercial flying, but excluded all air carrier and military operations.[26] Routine autopsies done on fatally injured pilots revealed measurable blood and/or tissue alcohol in 56 cases.[27] The pilots represented all classes of airmen and all pilot ratings, with student pilots making up 19.5% of the total; private pilots, 53.6%; and commercial pilots, 21.5%.[28]

Other data supported the contention that alcohol significantly affects flying ability. Of the 39 cases in which it was possible to determine flight times of the alcohol-positive group, almost 50% crashed within 18 minutes of takeoff.[29] By way of comparison, in a corresponding sample of fatal accidents in which alcohol involvement was definitely ruled out, only 26% of the aircraft crashed

---

[21] *Id.*

[22] *Id.*

[23] Young & DeTrude, *Preparation of an Aircraft Accident Case*, 22 FED'N INS. COUNCIL Q. 7, 10-11 (1971).

[24] Proposed Rulemaking, *supra* note 19, at 8800.

[25] Harper & Albers, *Alcohol and General Aviation Accidents*, 35 AEROSPACE MED. 462-64 (1964) [hereinafter cited as Harper & Albers].

[26] *Id.* at 462.

[27] *Id.* The study did not consider cases in which the alcohol level was less than 15 milligrams per 100 milliliters of blood. In the positive alcohol group, the average alcohol level was 145 milligrams per 100 milliliters blood. Twenty-one and four-tenths percent had levels below 50 milliliters and 21.4% had levels between 50 and 99 milliliters. *Id.* The commonly accepted legal limit for driving is 150 milligrams per 100 milliliters of blood. *Id.* at 464.

[28] This finding was of particular significance when considering that, in the total pilot population, only 10% were students. Private and commercial pilots almost evenly divided the remainder of the total population. *Id.* at 463.

[29] *Id.*

within 18 minutes of takeoff.[30] Also, the alcohol-positive group had a night accident rate almost twice that of the overall general aviation fatal accident group.[31] Fifty-five percent of the alcohol related accidents involved basic loss of control of the airplane.[32] Thirty-three percent involved stall-spin accidents, whereas stall-spin accidents accounted for only 13% in the overall general aviation fatal accident group.[33] Thus, alcohol would appear to have a decidedly adverse effect on a pilot's ability to control his airplane.

In a similar study done in 1964, autopsies were performed on 193 pilots in command out of the 436 killed in that year.[34] Forty percent of the autopsies showed a measurable alcohol level in the blood. Of these, 10% had alcohol levels so high as to indicate an advanced state of drunkenness.[35]

II. THE FAA REGULATIONS

A. *The Rule and its Amendment*

The government has long taken a stance against flying while intoxicated. The Civil Air Regulations (CAR's) prohibited flying while intoxicated,[36] as do the Federal Air Regulations, which superseded the CAR's.[37] Promulgated under the authority of the Federal Aviation Act of 1958,[38] the regulations, until recently, pro-

[30] *Id.*

[31] *Id.*

[32] *Id.* at 464.

[33] *Id.* Stall-spin accidents also suggest a loss of control of the aircraft. The increase in night flying accidents implicate the effect of alcohol on vision. *See generally id.* at 463-64.

[34] Proposed Rulemaking, *supra* note 19 at 8800.

[35] *Id.*

[36] *See* Part 43, Civil Air Reg., 20 Fed. Reg. 1003 (1963).

[37] 14 C.F.R. § 91.11 (1979); *see* Part 91—General Operating and Flight Rules, 35 Fed. Reg. 17,036, 17,037 (1970). The regulations originally provided in part that "[n]o person shall act as a crew member . . . [w]hile under the influence of alcohol [or while] using any drug that affects his faculties in any way contrary to safety." The regulations were amended in 1970 to also prohibit the operation of an aircraft "[w]ithin eight hours after the consumption of any alcoholic beverage." 14 C.F.R. § 91.11(a)(1) (1979). See text accompanying notes 40-70, *infra.*

[38] The Act provides the following:

> The Administrator is empowered and it shall be his duty to promote safety of flight of civil aircraft in air commerce by prescribing and revising from time to time:

vided simply that "[n]o person may act as a crew member of a civil aircraft . . . [w]hile under the influence of alcohol, or . . . [w]hile using any drug that affects his faculties in any way contrary to safety."[39] The agency's experience in seeking compliance with this regulation and statistics reflecting alcohol involvement in fatal air accidents led the agency, on June 25, 1965, to file an advance notice of proposed rule making.[40] In this notice the Federal Aviation Administrator noted concern that there was no specific regulation against crew members' drinking before or during flight.[41] This concern had been brought about by FAA experiments showing that complex coordination tasks similar to those required by a pilot were measurably affected by an alcohol level as low as .02%.[42] In addition, the agency noted that the harmful effects of alcohol continued even after the alcohol had left the blood.[43] Even when the severity of the aftereffects did not reach hangover status, there was a decrease in alertness and thinking ability, a reduction in motor skills, and a loss in coordination.[44] The effects could continue for ten to twelve hours.[45]

Several potential amendments to the existing rule were proposed. One suggestion was that a person could be prohibited from acting as a crew member for some fixed period of time after consumption of any alcoholic beverage, or at any time the alcohol in his blood exceeded a certain level.[46] Another proposal recommended that an Advisory Circular be issued, providing guidelines to the flying public on alcohol blood levels which would be present after drinking various kinds of quantities of alcoholic beverages, variations

> . . . such reasonable rules and regulations, or minimum standards, governing other practices, methods, and procedure, as the Administrator may find necessary to provide adequately for national security and safety in air commerce.

49 U.S.C. § 1321 (1976).

[39] 14 C.F.R. § 91.11(a) (1979); *see* Proposed Rulemaking, *supra* note 19, at 8799-800 (1965).

[40] Proposed Rulemaking, *supra* note 19, at 8799-800 (1965).

[41] *Id.* at 8800.

[42] *Id.* These tests were performed in a pressure chamber to simulate effects of varying altitudes. *Id.*

[43] *Id.*

[44] *Id.*

[45] *Id.*

[46] *Id.*

among individuals and with the passage of time.[47]

On June 25, 1965, a notice of proposed rule making was issued[48] in which the agency indicated that it had considered the responses to the previous notice and had determined that the best course of action would be to prohibit a person from acting as a crew member within a specified time after consumption of alcohol.[49] This proscription would be in addition to the existing prohibition against flying while intoxicated.[50] The FAA concluded that an eight-hour limit would be appropriate as a "rock bottom" minimum beyond which safety would be jeopardized.[51] The rule would be helpful as a deterrent for pilots who were not responsible enough to moderate their drinking habits and would also make it easier to enforce the FAA policy against flying while under the influence of intoxicants.[52]

On January 16, 1967, more than a year after the second notice of proposed rule making, the agency announced that it would withdraw the proposed rule.[53] Although the majority of the comments received had supported the rule, some major industry spokesmen opposed the proposed rule on the grounds that it would be unenforceable, and that the present rule, in conjunction with the rule prohibiting reckless or careless flying,[54] would deal with the problem sufficiently.[55] Other commentators felt that the proposed rule would undermine extant air carrier policies and practices mandating periods of abstinence longer than eight hours.[56] Some responses were also concerned with the difficulties of defining the nature and quantity of alcoholic beverages to which the proposed rule would refer.[57] Others suggested that an educational process would be the most effective and instructive approach to the problem, and this

---

[47] *Id.*

[48] Notice of Proposed Rulemaking, 30 Fed. Reg. 14,170, 14,170-71 (1965).

[49] *Id.* at 14,171.

[50] *Id.*

[51] *Id.*

[52] *Id.*

[53] Withdrawal of Notice of Proposed Rulemaking, 32 Fed. Reg. 675 (1967).

[54] "No person may operate an aircraft in a careless or reckless manner so as to endanger the life or property of another." 14 C.F.R. § 91.9 (1979).

[55] Withdrawal of Notice of Proposed Rulemaking, 32 Fed. Reg. 675 (1967).

[56] *Id.*

[57] *Id.*

was the plan that the agency determined to follow at that time.[58]

Several steps were taken as part of the educational process. First, a pocket-sized educational pamphlet was prepared and issued to all segments of the aviation community. Second, an announcement was made in the Medical Facts for Pilots section of the Airman's Information Manual that it would be advisable to allow twenty-four hours between the last drink and take off time. Last, alcohol was discussed at pilot safety meetings conducted by the FAA's General Aviation District Offices on a continuing basis throughout the United States.[59] In addition to these steps, the FAA continued its studies of alcohol and flying.[60] Between 1965-1969, accident data showed a slight decrease in alcohol-related aircraft accidents.[61] According to the FAA, this resulted from publicity given to the problem.[62] Despite the slight improvement, the FAA determined that the situation was virtually unchanged.[63] When the Aircraft Owners and Pilots Association, which had previously opposed amendment to the alcohol rule, petitioned the FAA on January 6, 1970, to adopt the previously proposed eight-hour rule, the FAA readily agreed and in response, filed a notice of proposed rule making on June 11, 1970.[64] The rule was identical to that proposed earlier,[65] which prohibited a person from acting as a crew member of an aircraft within eight hours after consumption of any alcoholic beverage.[66]

On November 4, 1970, the FAA announced that it would adopt the proposed rule, and amend Federal Air Regulation (FAR) 91.11 accordingly, effective December 5, 1970.[67] In response to comments concerned with problems of enforcement,[68] the agency asserted that the rule would be an additional deterrent, preventing

---

[58] *Id.*

[59] Notice of Proposed Rulemaking, 35 Fed. Reg. 9217, 9217 (1970).

[60] *Id.*

[61] *Id.* at 9218.

[62] *Id.*

[63] *Id.*

[64] *Id.* at 9217-18.

[65] See text accompanying notes 49-53, *supra.*

[66] Notice of Proposed Rulemaking, 35 Fed. Reg. 9217, 9218 (1970).

[67] Part 91—General Operating and Flight Rules, 35 Fed. Reg. 17,036 (1970).

[68] See text accompanying notes 54-56, *supra.*

crew members from flying too soon after drinking.[69] The FAA also noted that the eight-hour rule was considered a "rock bottom" minimum that was not intended to induce the relaxation of stricter rules already in operation by a number of air carriers and other operators.[70]

B. *Sanctions*

1. *Pecuniary Penalties*

Violation of FAR 91.11 is technically not a crime; no criminal sanctions are authorized.[71] Civil penalties, however, are provided for under section 901[72] of the Federal Aviation Act.[73] Any person who violates any provision of Title VI[74] of that Act, or any regulation or order issued under that title, is subject to a civil penalty of not more than $1,000 for each violation.[75] Since the safety rules and regulations, including those relating to alcohol and flying, fall under the aegis of Title VI,[76] violation of 91.11 would subject the violator to a potential fine of $1,000.[77] The Administrator may compromise the penalty if the person so charged presents to the agency mitigating evidence.[78]

2. *Revocation of Certification*

The primary goal of the regulatory measures is, of course, to

[69] Part 91—General Operating and Flight Rules, 35 Fed. Reg. 17,036, 17,036 (1970).

[70] *Id.*

[71] Criminal penalties are provided for by the Federal Aviation Act for violation of certain specified provisions and their accompanying rules and regulations, but none of these concern flying while intoxicated. 14 C.F.R. § 13.23 (1979); *see* 49 U.S.C. §§ 1472, 1523 (1976).

[72] Federal Aviation Act of 1958, § 901, 49 U.S.C. § 1471 (1976).

[73] 14 C.F.R. § 13.15 (1979); *see* 49 U.S.C. § 1471 (1976).

[74] Violations of Titles III, V, and XII are covered by this penalty provision as well. 14 C.F.R. § 13.15 (1979).

[75] 14 C.F.R. § 13.15 (1979); *see* 49 U.S.C. § 1471 (1976).

[76] See text accompanying note 39, *supra.*

[77] 14 C.F.R. § 1315(g) (1979).

[78] The person charged with the violation may present . . . any oral or written material or information in answer to the charges, explaining, mitigating, or denying the violation, or showing extenuating circumstances. Materials or information so presented is considered in making the final determination as to probable liability for a civil penalty, or the amount for which it will be compromised. 14 C.F.R. § 13.15(b) (1979).

keep the drinking pilot on the ground. While pecuniary penalties for violations may have some deterrent effect, a far more important penalty is the agency's power to revoke an airman's certificate under section 609[79] of the Federal Aviation Act.[80] Under this section, the agency is given the power to reexamine any pilot. If, as a result of such reexamination, the agency determines that in the interest of safety, an airman's certificate should be revoked, the agency may then revoke it.[81] Without a certificate, a pilot cannot fly.

The power to reexamine and revoke an airman's certificate is further augmented by the requirement of periodic medical reports for renewal of medical certification, which is required in addition to skill certification.[82] FAA medical certificates are valid only for certain specified periods; for instance, student and private pilots are issued Class III Medical Certificates, valid for two years, whereas commercial pilots performing the duties of a pilot in command in air carrier operations are issued Class I Medical Certificates, good for only six months.[83] Each pilot must also file a medical history form, which includes the question, "Have you ever had or have you now any of the following: . . . excessive drinking habit?"[84] There are also questions that further attempt to discern whether the applicant has alcohol problems, such as inquiry into any traffic convictions, hospital admissions, or nervous trouble of any kind.[85] Since the medical history form is an official

---

[79] Section 609 provides the following:

> The Administrator may, from time to time, re-examine any civil airmen. If, as a result of any such re-examination, or if, as a result of any other investigation by the administrator, he determines that safety in air commerce or air transportation and the public interest requires, the Administrator may issue any order . . . revoking, in whole or part, any . . . airman certificate. . . .

49 U.S.C. § 1429 (1976).

[80] *See* 14 C.F.R. § 13.19 (1979).

[81] *Id.*

[82] Pakull, *Alcoholism and Aviation Medical Certification*, ALCOHOLISM: CLINICAL AND EXPERIMENTAL RESEARCH, Jan. 1978, at 43-47 [hereinafter cited as Pakull].

[83] *Id.* at 43. Approximately 7500 physicians around the country are designated as Aviation Medical Examiners. These physicians conduct the periodic examinations. *Id.*

[84] *Id.*

[85] *Id.*

document, falsifying information could subject the signer to a penalty for willfully falsifying or concealing pertinent information.[86]

3. *Petitions for Exemption*

The regulations provide that there are nine medical conditions for which a medical certificate must always be denied.[87] If an applicant shows an established history or clinical diagnosis of alcoholism,[88] one of the nine conditions, *at any time* in the applicant's life, a medical certificate is denied.[89] At first blush, this may seem like an unjust action in the case of a former alcoholic who has abstained for some significant period. The FAA, however, has provided that applicants, in certain circumstances, may receive an exemption from the usual requirements.[90] The applicant must petition for an exemption and show that there is a reasonable probability that the condition will not affect air safety and that the grant of an exemption would be in the public interest.[91]

The Federal Air Surgeon periodically convenes a group of medi-

---

[86] The regulations provide the following:

> (a) No person may make or cause to be made—
>
> (1) Any fraudulent or intentionally false statement on any application for a medical certificate under this part;
>
> (2) Any fraudulent or intentionally false entry in any logbook, record, or report that is required to be kept, made, or used, to show compliance with any requirement for any medical certificate under this part;
>
> (3) Any reproduction, for fraudulent purpose, of any medical certificate under this party;
>
> (b) The commission by any person of an act prohibited under paragraph (a) of this section is a basis for suspending or revoking any airman, ground instructor, or medical certificate or rating held by that person.

14 C.F.R. § 67.20 (1979).

[87] Pakull, *supra* note 82, at 44; *see* 14 C.F.R. § 67.13 (1979).

[88] For the purposes of the regulations, "alcoholism" is defined as "a condition in which a person's intake of alcohol is great enough to damage his physical health or personal or social functioning, or when alcohol has become a prerequisite to his normal functioning." 14 C.F.R. § 16.13(d)(1)(i)(c) (1979).

[89] Pakull, *supra* note 82, at 45. *See also* 14 C.F.R. §§ 67.13, .15, & .17 (1979).

[90] F.A.A., Alcoholism and Airline Flight Crewmembers Policy Letter at 1 (Nov. 10, 1976) [hereinafter cited as Policy Letter]; *see also* 49 U.S.C. § 1421(c) (1976), which provides that "[t]he administrator from time to time may grant exemptions from the requirements of any regulation prescribed under this subchapter [referring to the safety regulations] if he finds that such action would be in the public interest."

[91] Pakull, *supra* note 82, at 45.

cal specialists to review petitions for exemption.[92] In the process of reviewing exemption petitions, the Federal Air Surgeon is not bound by the regulations and may recommend that certain conditions be attached to the exemption, such as periodic medical reports or limitations on the flyer's responsibility.[93] Until recently, petitions for alcohol exemptions were rarely granted; in fact, between 1960 and 1971, of the eight petitions submitted, none were granted.[94] Between 1972 and 1975, there were twenty-one petitions, of which two-thirds were granted.[95] The FAA policy regarding exemptions changed significantly in 1976 in recognition of the effectiveness of treatment of alcoholism and in response to steps taken by the airline industry in implementing identification and treatment programs.[96] In that year, there were 98 petitions for exemption from the alcoholism standards; of these, 77 exemptions were granted.[97]

In determining whether to grant an exemption, a number of factors are considered. Of primary importance until recently has been the length of time during which a pilot has abstained from alcohol.[98] Prior to the 1976 policy change, it was unusual for a pilot to be granted an exemption where the period of abstinence was less than a year. On the other hand, petitioners showing abstinence for over five years were, at least after 1971, rarely denied exemptions.[99] Other factors taken into consideration are the severity of the past problem, how long it existed, the number of times that treatment was sought and relapse occurred, the petitioner's overall psychological condition before and after the problem, residual medical complications, and the petitioner's continued commitment to rehabilitation.[100] In addition, an unsuccessful petitioner might reapply at a future date, or appeal the decision to

[92] *Id.*

[93] *Id.*

[94] Policy Letter, *supra* note 90, at 1.

[95] *Id.* Apparently this increase occurred as a part of the gradual shift in policy. See text accompanying notes 142-152, *infra*. The Policy Letter is vague on this point.

[96] *Id.*; see text accompanying notes 142-152, *infra*.

[97] *Id.*

[98] Pakull, *supra* note 82, at 45; see text accompanying notes 83-94, *supra*.

[99] Pakull, *supra* note 82, at 45.

[100] *Id.*

the National Transportation Safety Board (NTSB).[101] On appeal, the only issue would be whether or not the appellant had a history or diagnosis of alcoholism.[102] An unfavorable decision following a hearing can be appealed to the full NTSB and, from there to federal court.[103]

C. *Problems with the Regulatory Scheme*

The FAA approach to solving the drinking-while-flying problem itself has an inherent problem; it does not encourage the pilot with a drinking problem to seek help. Even if a drinking pilot reveals that he has a problem only in the course of seeking help, the sanctions are severe, particularly for the pilot who depends upon flying for his livelihood.[104] In the past, management in commercial aviation has simply discharged pilots with drinking problems.[105] These factors can lead the drinking pilot to go "underground," that is, to conceal his problem as long as possible in order to avoid losing his job and his license.[106] Whether or not he is caught, and when, depend to a certain degree on those with whom he flies. They must be willing to turn him in, with full knowledge of the opprobrium he will face. Several pilots interviewed expressed varying opinions about the extent to which members of a flight crew might be inclined to "cover up" for a drunk pilot; in any case, none of them were able to relate any direct encounter with such a cover up situation.[107]

III. THE PREVENTATIVE APPROACH OF THE AIR LINE PILOTS ASSOCIATION

A. *Problems in Dealing with the Alcoholic Professional Pilot*

Whether a pilot with a drinking problem is discovered immedi-

---

[101] *Id.* at 46.

[102] *Id.*

[103] *Id. See also* 49 U.S.C. §§ 1429, 1486 (1976).

[104] Gilstrap & Hoover, *The Union as a Catalyst in an Employee Alcoholism Program*, 6 LAB.-MANAGEMENT ALCOHOLISM J. 33, 34-35 (1977) [hereinafter cited as *Union*].

[105] Masters, Hoover & Hutchings, *supra* note 8, at 1.

[106] *Id.*

[107] Three conversations, in Dallas, Texas (December, 1979). The pilots interviewed were career pilots with one of the large airlines. They preferred to remain anonymous.

ately, or successfully goes "underground," the fact remains that until very recently there has been very little incentive for a pilot to bring his problem out into the open. In 1972, the Board of Directors of the Air Line Pilots Association (ALPA),[108] a union representing approximately 30,000 commercial pilots, met with their Aeromedical Advisor in a closed session to discuss what were considered the two major health problems of pilots: cardiovascular disease and alcoholism with its attendant complications.[109] Alcoholism was considered an important problem, not because of the number of cases, but because of (1) the inherent danger to flight safety if untreated or driven underground; (2) the FAA's reluctance (at the time of the meeting) to grant exemptions to ex-alcoholic pilots; (3) the tendency of management to discharge pilots with alcohol problems; and (4) the lack of a conceptualized preventive approach to alcoholism within ALPA.[110] The Board decided that steps needed to be taken in order to pull together the pilots, management and the FAA, to approach the problem in a non-punitive manner.[111] The union seemed a likely place to start for two reasons. First, it was apparent that a program for early identification based on supervisory techniques would not work in the unique milieu of the professional pilot, as pilots were simply not subject to much direct supervision.[112] Second, the FAA's policy of mandatory denial of medical certificates to alcoholic or formerly alcoholic pilots constituted a real threat to early identification of a drinking pilot, and caused fear and mistrust on the part of a pilot with a problem.[113] Thus, the ALPA decided that it was essential to establish a demonstration program that would attempt to resolve these counterproductive tendencies in the context of a pilot's unique work environment.[114]

[108] The union, founded in 1931, represents pilots who work for 35 different airlines and reside mostly in the United States. The original focus of the union was primarily on wage issues, but it became more diverse as it grew, with one of its concerns being safety. ALPA now has an Aeromedical Advisor, Richard L. Masters, M.D., who was largely responsible for the institution of the preventive alcoholic program. *Union, supra* note 104, at 33-35.

[109] Masters, Hoover & Hutchings, *supra* note 8, at 1.

[110] *Id.*

[111] *Union, supra* note 104, at 34.

[112] *Id.* at 35.

[113] *Id.*

[114] *Id.*

B. *The Human Intervention and Motivation Study*

The ALPA, through the efforts of its Aeronautical Committee, applied for and received a demonstration grant from the Occupational Programs Branch of the National Institute of Alcohol Abuse and Alcoholism (NIAAA) effective October 1, 1974.[115] The primary goal of the grant was to develop an occupational program model that would be flexible enough for industry-wide application and that could deal with the problem of alcohol abuse within the occupational setting of the commercial pilot.[116] The project office was, and still is, located with that of the ALPA Aeromedical Advisor,[117] and was titled the Human Intervention and Motivation Study (HIMS).[118]

The ALPA program was not the first industrial program aimed at treatment and prevention of alcohol abuse.[119] The NIAAA estimated in 1972 that alcohol abuse problems in the work force of the United States cost industry over 10 billion dollars per year.[120] A Yale study found that the male alcoholic in industry was likely to lose an average of 22 days per working year from acute effects of alcohol, and was responsible for numerous fatal and non-fatal

---

[115] Masters, Hoover & Hutchings, *supra* note 8, at 1-2.

[116] *Id.* at 1; see text accompanying notes 9-14, *supra*, for a description of the occupational setting of the professional pilot.

[117] Gilstrap, Masters & Hoover, *Preventing Alcohol Abuse*, AIR LINE PILOTS MAGAZINE, April 1975, at 28 [hereinafter cited as *Preventing Alcohol Abuse*].

[118] Masters, Hoover & Hutchings, *supra* note 8, at 2. For the purposes of the study, ALPA provided matching funds with the NIAAA on a percentage basis. *Preventing Alcohol Abuse, supra* note 117, at 29. E. Paul Hoover was named Program Director and Dr. Richard L. Masters, the ALPA Aeromedical Advisor, took on the responsibility for the project as a whole. Additional personnel include Program Coordinator, Captain Gilbert S. Chase, Counselling Psychologist Calvin L. Hutchings, Medical Advisor Nester B. Kowalsky, M.D., and Joseph A. Pickersgill, Administrator. P. Hoover, Review of Human Intervention and Motivation Study, at 1 (Nov. 1, 1978) (unpublished paper available from the Air Line Pilots Ass'n) [hereinafter cited as Review].

[119] *See* Gee, *supra* note 1, at 3, col. 4.

[120] E. Hoover, C. Hutchings, R. Masters & N. Kowalsky, A Cost-Benefit Analysis of an Occupational Program for Professional Pilots, at 1 (unpublished paper available from the Air Line Pilots Ass'n) (citing NATIONAL INSTITUTE OF MENTAL HEALTH/NATIONAL INSTITUTE ON ALCOHOL ABUSE AND ALCOHOLISM, ALCOHOL AND ALCOHOLISM: PROBLEMS, PROGRAMS AND PROGRESS (1972) (available from the United States Government Printing Office)) [hereinafter referred to as Cost-Benefit Analysis].

accidents, both on and off the job.[121] Also, research indicated that an alcoholic might suffer from his disease anywhere from 10 to 15 years before it became apparent to his supervisor.[122] Many companies concluded that it would be cheaper to have a preventative program for their workers.[123] Many firms now employ outside consultants, but some, such as the United States Postal Service, developed their own in-house services.[124]

Thus, at the time of its inception in 1974, the Human Intervention and Motivation Study could draw on the experience of industrial programs aimed at the prevention and treatment of alcohol abuse. The project staff was organized to bring together experience and expertise not only from other occupational alcohol programs, but also from the fields of preventative medicine, aerospace medicine, labor-management relations, and other related disciplines.[125] The ALPA sought out and received the support and cooperation of the Federal Air Surgeon as well as the management of a number of airlines.[126] Three airlines agreed to volunteer their assistance in the development of the model program.[127] The pilots from the airlines represented approximately 10% of the total ALPA membership.[128]

Pivotal to the ALPA program is the concept of alcoholism as a disease, rather than primarily a mental or moral problem.[129] The FAA defines alcoholism as "a condition in which a person's intake of alcohol is great enough to damage his physical health or personal or social functioning, or when alcohol has become a prerequisite to his normal functioning."[130] Alcoholism is a unique illness, however, in that the patient himself plays a large role in his

---

[121] Cost-Benefit Analysis, *supra* note 120, at 1 (citing S. BACON, ALCOHOLISM AND INDUSTRY (1951)).

[122] Cost-Benefit Analysis, *supra* note 120, at 1.

[123] *See generally* Gee, *supra* note 1.

[124] Gee, *supra* note 1, at 3, col. 4.

[125] Masters, Hoover & Hutchings, *supra* note 8, at 2.

[126] *Preventing Alcohol Abuse, supra* note 117, at 29.

[127] *Id.*

[128] Masters, Hoover & Hutchings, *supra* note 8, at 5. The airlines, though similar in size, type and location, had differences in labor-management relations, age distribution of pilots, and medical departments. *Id.*

[129] *Preventing Alcohol Abuse, supra* note 117, at 29.

[130] 14 C.F.R. § 67.13(d)(1)(i)(c) (1979).

recovery.[131] Most importantly, alcohol is a treatable illness.[132]

For the ALPA program, the goals have been prevention through promotion of good health, preventing departure from good health, and preventing disability after the onset of disease.[133] Thus, the focus of the program has been on education, early diagnosis and prompt treatment.[134] Behind this preventative approach is the firm commitment to the belief that a well-rehabilitated pilot can return to his profession without compromising flight safety.[135]

C. *The "Peer Group" Approach: Human Intervention Committees*

Since pilots typically are not subject to much direct supervision through which developing alcohol-abuse problems could be identified,[136] the HIMS developed and is continuing to refine a "peer group" approach, focusing on identification of alcohol problems and motivation for treatment among the pilots themselves.[137] Elements of the peer group approach include education, intervention, evaluation and referral, treatment, and follow-up activities.[138] Following a one-day alcoholism workshop attended by the Master Executive Council Chairman from each of the three participating airlines, thirty volunteer ALPA members were appointed from each airline to serve on a Human Intervention Committee (HIC) for each airline. The committee members were then trained by the project staff through a course of three two and one-half day seminars and various other task-oriented workshops. These volunteers were not trained to be alcoholism counselors or diagnosticians, but were concerned with coordinating educational programs, interventions, follow-ups and program development activities.[139]

The three Human Intervention Committees have sponsored direct mailings of alcohol information to the homes of some 3000 pilots. Resource libraries were developed by the committees and

---

[131] *Preventing Alcohol Abuse, supra* note 117, at 29.

[132] *Id.*

[133] Masters, Hoover & Hutchings, *supra* note 8, at 2.

[134] *Id.* at 3.

[135] *Id.*

[136] *Id.* at 5.

[137] *Union, supra* note 104, at 36.

[138] *Id.*

[139] *Id.*

placed in crew lounges. The committees also organized short presentations on alcoholism for union meetings. In the meantime, the HIMS project group has made two attempts to distribute alcoholism information to all 30,000 members of ALPA and has also worked through other smaller groups within ALPA for the purpose of further disseminating information.[140]

More difficult problems faced the HIMS group in alcohol prevention past the primary, educational phase. Somehow, pilots who already had alcohol problems had to be made to feel comfortable enough to come forward with their problems and seek treatment, rather than go underground. The pilots' fear of losing medical certification was a serious obstacle.[141] In 1976, the FAA issued a policy letter entitled "Alcoholism and Airline Flight Crewmembers" in which the agency noted a change in stance toward recovered alcoholic pilots who sought recertification.[142] The FAA acknowledged that alcoholism and its complications could be effectively treated in many cases, and supported efforts to identify and help flight crew members for whom alcohol had become a problem.[143]

As part of the FAA's changing approach, the Federal Air Surgeon announced in the policy letter that he would be willing to consider pilots' petitions for exemptions as early as one month after they had been discharged from a qualified alcohol rehabilitation facility or similar mode of intensive treatment.[144] A petition ordinarily would have to be accompanied by a psychiatric evaluation from a clinician with substantial experience in the area of aviation psychiatry, as well as a report from the treatment facility.[145]

In cases in which petitions for exemption were granted, mandatory follow-up reports would be required from at least two sources, such as a union representative and an air carrier representative.[146]

[140] *Id.*

[141] Masters, Hoover & Hutchings, *supra* note 8, at 6.

[142] Policy Letter, *supra* note 90, at 1. See text accompanying notes 143-152, *infra.*

[143] Policy Letter, *supra* note 90, at 2.

[144] *Id.* The agency did not elaborate on what it would consider a "qualified" rehabilitation facility.

[145] *Id.* Various specific psychological tests were prescribed as part of the protocol for exemption petitioning procedure. *See id.* at 3.

[146] *Id.* at 3.

Other reports, including psychiatric evaluations every six months, might be necessary, but in cases in which there were long successful remissions, periodic follow-up reports might be phased out.[147] The period of successful remission necessary to bring about a phase-out would generally be two years,[148] a considerable change from the previous FAA policy under which petitioners who could show periods of abstinence of only a year or less were rarely granted exemptions.[149] As before, however, total abstinence would be the key to continued exemption.[150] Further, the Federal Air Surgeon made it clear that this change in policy did not represent an intent to grant exemptions in any case where an alcoholic had merely received treatment.[151] Each individual would have to demonstrate persuasively a commitment to total abstinence.[152]

Another obstacle the ALPA had to overcome in assuaging a pilot's fear of the consequences of coming forward with his problem was the matter of confidentiality. In its application for the grant, ALPA stressed that only those personnel who had a "need to know" would be given access to records of the program,[153] and no medical information would be released without the pilot's consent.[154] All information would be handled in accordance with Department of Health, Education and Welfare regulations and the Federal Privacy Act.[155] Thus, it was hoped that a pilot would feel free to admit his illness openly to those individuals who could be of assistance or otherwise had a need to know, without fear of recriminations.

As part of the peer group orientation of the HIMS, each of the Human Intervention Committees refers pilots to the HIMS staff for diagnosis of the nature and extent of any alcohol or alcohol-related problems.[156] From there, the staff determines the proper course of action, which may include further referral to an outside

---

[147] *Id.* at 2-3.

[148] *Id.* at 2.

[149] See text accompanying notes 94-97, *supra.*

[150] Policy Letter, *supra* note 90, at 4.

[151] *Id.*

[152] *Id.*

[153] *Preventing Alcohol Abuse, supra* note 117, at 2.

[154] Masters, Hoover & Hutchings, *supra* note 8, at 7.

[155] *Id. See* 5 U.S.C. § 552(a) (1976); 21 U.S.C. § 1175 (1976).

[156] Review, *supra* note 118, at 2.

agency.[157] If a pilot requires in-patient treatment, post-treatment activities become the joint responsibility of the HIMS staff and committee members.[158] If and when the FAA grants a recovered pilot an exemption, his out-patient abstinence is jointly monitored by ALPA, the pilot's company, and the treatment facilities.[159] The HIMS staff may also help a pilot prepare his petition for exemption.[160]

D. *Results*

In May, 1977, a paper was presented by ALPA at the eighth annual Medical Scientific Session of the National Alcoholic Forum in San Diego, detailing the results of the Human Intervention and Motivation Study for the first thirty months.[161] By that time, each of the three Human Intervention Committees had made significant progress in establishing its individual program.[162] At the very least, the "peer group" program was functioning, and in two cases there had been significant interaction with management of the airlines.[163] One airline, it was reported, had been motivated to begin work on a policy that would be applicable not only to all of its pilots, but to all of its other employees as well.[164] Thus, management was showing some change in attitude through its increasingly productive involvement.[165]

The educational efforts of the Committees had been successful in a variety of ways. Informal surveys of participants in Human Intervention Committees Seminars indicated that almost 75% had changed their drinking habits following the seminars.[166] There was a significant increase in the number of referrals to the HIMS staff following each seminar.[167] By the end of 30 months, there had been 250 referrals: 14% were self-referred; 72% had been referred by

[157] *Union, supra* note 104, at 37.

[158] *Id.*

[159] *Id.*

[160] *Id.*

[161] Gee, *supra* note 1, at 3, col. 1.

[162] Masters, Hoover & Hutchings, *supra* note 8, at 7.

[163] *Id.* at 8.

[164] *Id.* at 7.

[165] *Union, supra* note 104, at 37.

[166] Masters, Hoover & Hutchings, *supra* note 8, at 8.

[167] *Id.* at 9.

other pilots; 5% were referred by management or company medical departments; and the remainder had been referred by friends, family, and others.[168] In 46% of these cases, the HIMS staff only advised the pilot, but in 54% of the cases, the staff took an active role in pretreatment evaluation and referral or post-treatment follow-up.[169]

Because of the lengthy nature of the alcoholism treatment process, many cases were still unresolved at the time of the 30 month study. Of those that were resolved, the average time off flight-status had been 215 days, although most pilots had been able to return within 105 days.[170] Others had been off the job for periods ranging from one to as long as 1,131 days.[171] Seventy-three pilots had been referred to in-patient programs. while the remainder, if they had a problem at all, were sent to out-patient or self-help programs, or had sought treatment on their own.[172]

The program's most significant results were its success in seeking pilot recertification and the success rate of the treatment. Of the 74 pilots who applied for recertification under the aegis and with the endorsement of the program, only one was denied.[173] Pilots unsuccessful in receiving the endorsement of the program were uniformly denied recertification.[174] Further, 89% of the pilots endorsed by ALPA maintained sobriety.[175] The remaining 11% who relapsed had been taken off flight status and were being further rehabilitated.[176] Further study of ways to diminish the relapse rate was in process with the assistance of the FAA.[177]

At the same time the 30-month evaluation was done, the ALPA applied for a two-year extension of the grant.[178] The purpose of

[168] *Id.* at 9-10.

[169] *Id.* at 10.

[170] *Id.*

[171] *Id.*

[172] *Id.*

[173] *Id.*

[174] *Id.*

[175] *Id.*

[176] *Id.*

[177] *Id.* at 11. Also, consultants from the University of Colorado School of Medicine, Department of Preventative Medicine, were reviewing the project in order to offer criticism and suggestions. *Id.*

[178] *Id.*

the extension was to implement the program industry-wide, so that all pilots could be assured that their problems with alcohol would be handled in a non-punitive manner that would lead to a successful return to health and work.[179] In its review of the project, the NIAAA said the following: "[T]he project has had substantial effect upon the airline pilots, the airlines themselves, and the Federal Aviation Authority, which is positive in every respect. Also . . . this project could and should serve as the model by which other professional associations and organizations could establish and maintain an Occupational Alcoholism Program."[180] Further noting that the project had been "highly successful" in identifying, diagnosing and referring pilots with alcohol problems,[181] the NIAAA renewed the grant.[182]

The HIMS staff reviewed the project again in November, 1978.[183] By that time, the staff had received requests for advice and assistance from approximately 380 pilots.[184] About 70% came at the recommendation of the Human Intervention Committees or other ALPA representatives.[185] In 1977, the FAA granted 66 alcoholism exemptions to commercial pilots, and denied three, one because of a heart disease complication.[186] The other two pilots were participating in further rehabilitation.[187]

More important than the continuing individual successes was the changing attitude of the industry. By the time of the 1978 review, 22 Master Executive Councils of the ALPA had taken action toward development of some sort of alcoholism program for their members, some using the joint labor/management approach[188] Eleven of them had drawn up and distributed joint letters of agreement, and several had requested HIMS assistance with training seminars.[189] Also, by late 1978, some 350 ALPA representatives

[179] *Id.*

[180] *Union, supra* note 104, at 38.

[181] *Id.*

[182] Gee, *supra* note 1, at 3, col. 1.

[183] Review, *supra* note 118.

[184] *Id.* at 2.

[185] *Id.*

[186] *Id.* at 3.

[187] *Id.*

[188] *Id.*

[189] *Id.*

from 27 different carriers had participated in HIMS training seminars.[190]

Interest in alcoholism prevention programs among the airlines themselves had increased.[191] In 1969 United Airlines had begun an experimental program which it expanded to cover the whole airline in 1973.[192] TWA tried some informal programs and, because of their success, began implementing a national program in late 1977.[193] American Airlines, when its initial 1972 experimental program had proven unsuccessful, began bringing the program back to life with the help of an alcoholism counselor.[194]

Other than the obvious benefit to the health of the individual pilots, a major benefit of an alcoholism prevention program such as that designed by ALPA is that a great deal of money can be saved by an airline for a small investment. The HIMS staff did a cost benefit analysis covering 67 pilots from eight airlines, which represented all cases referred by these airlines after October 1, 1974, and before June 30, 1978.[195] Treatment cost, sick leave and project management services were compared against expected savings in replacement retraining costs and anticipated savings from having kept the pilot off of the disability retirement role.[196] The cost return was projected at an average of nine dollars for every dollar invested had each airline employed a professional staff to manage these 67 cases.[197] The study did not consider other factors such as recruiting cost for new hires and decrease in sick leave usage following rehabilitation, which might make the investment return even greater.[198]

IV. Conclusion: Some Unresolved Dilemmas

The ALPA program is a great hope for the professional pilot with a drinking problem or for one in the process of developing

[190] *Id.*

[191] Gee, *supra* note 1, at 3, col. 4.

[192] *Id.*

[193] *Id.*

[194] *Id.*

[195] Cost-Benefit Analysis, *supra* note 120, at 2.

[196] *Id.* at 3.

[197] *Id.* at 7.

[198] *Id.*

such a problem. If this program is fully implemented throughout the industry, as planned, the alcohol-abusing pilot can feel free to come forward to find help in dealing with his problem, without the opprobrium of permanent loss of certification and loss of employment. A combined program of this sort, utilizing forces in management, labor and government, should be able to go far, not only in providing the individual who needs it with help, but in keeping the drinking pilot out of the air.

The ALPA program will do much for professional pilots, but it does very little for the private pilot who drinks, or the professional pilot who, though not alcoholic, combines drinking and flying from time to time simply out of lack of respect for the necessity for sobriety, like many of his counterparts, the drinking drivers. For these problem fliers, there is no doubt that a tightening of the regulations in the form of the eight-hour rule can make for stricter enforcement in some situations. Yet there are likely to be some cases where the rules are broken, and tragedy results.

The private pilot with a drinking problem faces some of the same problems in coming forward as did the professional pilot prior to the ALPA program.[199] Primarily, he is likely to lose his certification if his problem is exposed.[200] Whether this is a deterrent to that pilot would undoubtedly depend on his individual circumstances, and he can always seek an exemption if he is able to meet the fairly rigorous standards imposed by the FAA.[201] Revocation of certification does not seem unduly harsh either, as it should serve to keep him out of the air until he is cured. Yet fear of revocation, along with the unavoidable social stigma attached to the disease of alcoholism, will cause many private pilots to keep their problems to themselves.

The FAA could take several approaches geared toward keeping the drinking pilot out of the air. The agency could stiffen the regulations, as it already has done once, and Congress could make the penalties much harsher. Sweden for instance, has had some success with its system of extremely rigorous standards and correspond-

---

[199] See text accompanying notes 104-114, *supra*.

[200] See text accompanying notes 79-86, *supra*.

[201] See text accompanying notes 87-103 and 144-152, *supra*.

ingly tough sanctions aimed at stopping the drinking driver.[202] The FAA could go so far as to require breathalizer tests for crew members prior to operation of an aircraft, although this would, no doubt, be difficult or impossible to implement, particularly outside of the commercial context.

A system of rigid rules and harsh penalties, however, would do nothing to cure the problem where it starts—with the drinker himself. As safety in the air is one of the FAA's primary concerns, it seems only logical that the FAA should take steps toward encouraging the pilot with a drinking problem to come forward, and then to help him find help. Taking the lead from ALPA, the FAA could set up evaluation and referral services throughout the country. These units would concern themselves with three areas: education of pilots in the area about both the dangers of alcohol in the cockpit and the availability of the FAA services; evaluation and referral of those pilots who desire counselling or treatment; and processing pilots who were successfully rehabilitated by aiding them in seeking recertification and providing follow-up reports. Thus, a pilot with a drinking problem would not be deterred from seeking help because of his fear of losing his certification; he would know that if he cured his problem, he could be recertified fairly quickly. The result of such a program would be not only to keep many drinking pilots out of the air, but to make a meaningful contribution to the alcoholic pilot's private life, by making the course towards rehabilitation a smoother and easier one to take.

The regulatory scheme thus established should be designed to make a voluntary request for assistance a more desirable alternative to enforcement measures taken against the drinking pilot by the FAA. A strict and severe regulatory approach should be continued to deal with those pilots with drinking problems who refuse to seek help, or for those pilots who simply refuse to comply with the drinking regulations. Otherwise, formal implementation of

---

[202] *Drinking & Highway Safety, supra* note 15, at 134-35 (citing K. Herrick, *Alcohol and Auto Accidents in Europe*, 31 REPORT ON ALCOHOL 3-31 (1973)). Sweden combines extensive education of its citizens concerning the problem of alcohol and driving, with harsh penalties, including fines running as high as 10% of an individual's annual income. Conviction can be obtained with a blood alcohol count as low as .05%. Sweden reports that only 10% of its traffic fatalities are alcohol-related.

an educational and rehabilitation-or-revocation program, modeled after the ALPA approach, should be adopted by the FAA, particularly with a view toward saving highly trained, highly skilled commercial pilots, who would be encouraged to work through their drinking problems and to resume productive careers.